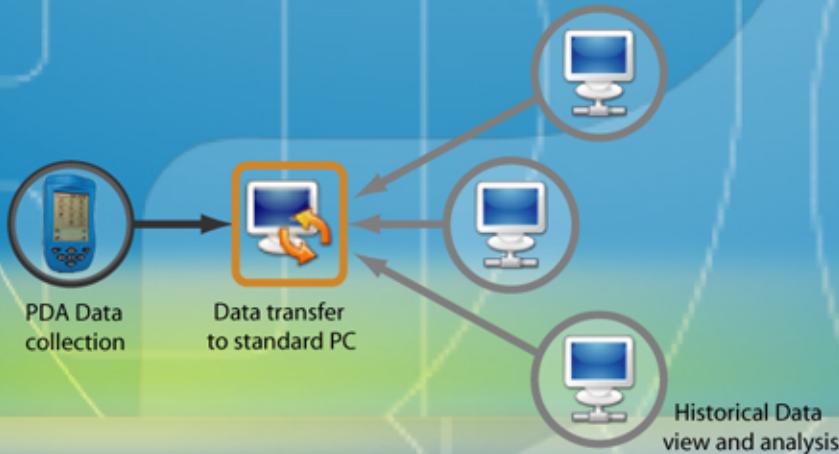




PlantLog®

THE MOST COMPREHENSIVE solution
for paperless facility inspections.



- Simplify Inspection Process
- Improve Data Accuracy
- Enforce Accountability
- Analyze Results



PlantLog is a robust, yet easy to use *paperless inspection* solution designed for plant engineering and facility management groups.

Benefits

Efficiency is vastly improved by reducing the time needed to perform routine inspections as well as archiving, retrieving and compiling paper based inspection logs.

Accuracy is increased by ensuring observations are complete and never taken outside of predefined acceptable boundaries as well as removing illegible hand writing and/or readings entered in the wrong section of a paper form.

Accountability is enforced by ensuring that readings are always taken in front of the given equipment by only permitting data entry once the machine has been identified by its unique bar-code label and by user logins to record who performs each inspection.

Analyze and Trend historical data to gain valuable insight of equipment usage, raw material consumption and identification of potential maintenance issues through the use of several customizable graphical charts and report types.

Simple to install, implement and use solution that requires no IT personnel in most cases and no additional software or hardware components.



Operator using a PlantLog data collection terminal to record inspection readings.

COMPLETE TURN KEY SOLUTION

PlantLog is a complete end to end data collection and reporting system, that includes all software, hardware and barcode tags used for performing inspections and other logging activities. However, each component is sold separately to allow customers to tailor the solution to their specific requirements.



PlantLog Software Suite

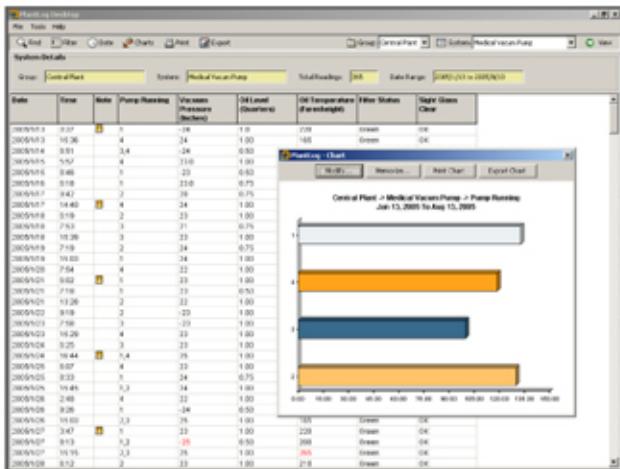
The PlantLog software consists of a group of applications used for setting up, performing, analyzing and maintaining a robust data collection process.

PlantLog Edit - An administrative tool for entering and modifying the details of each system that will be tracked as well as maintaining user accounts and permissions.

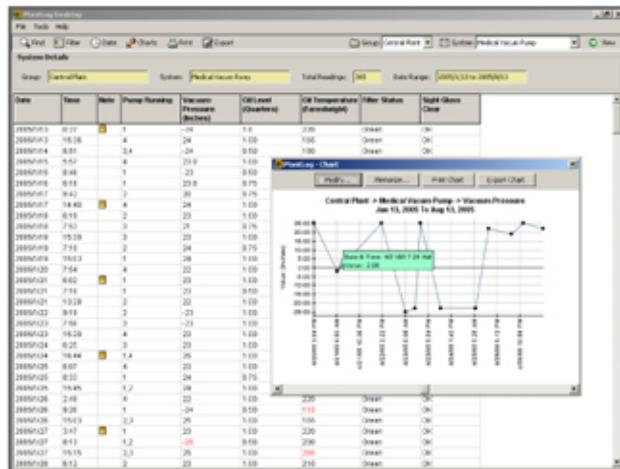
PlantLog Desktop - Application for viewing and analyzing collected data, creating charts, printing and exporting historical data.

PlantLog PDA - Application that runs on PDA data collection terminal used for identifying equipment and performing inspections.

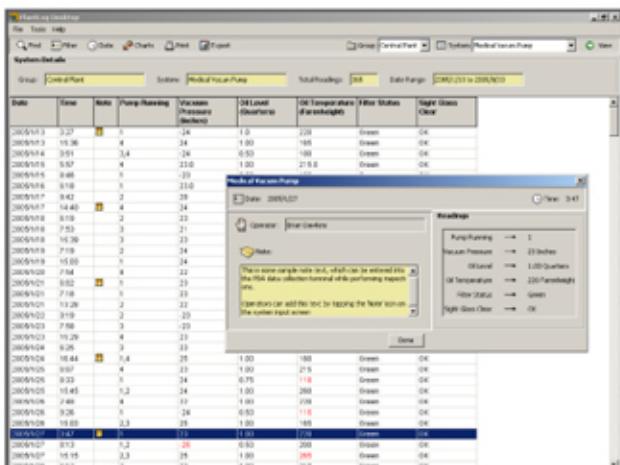
PlantLog Conduit - Application installed on any PC where the PDA terminals will connect to for transferring collected data to the central database.



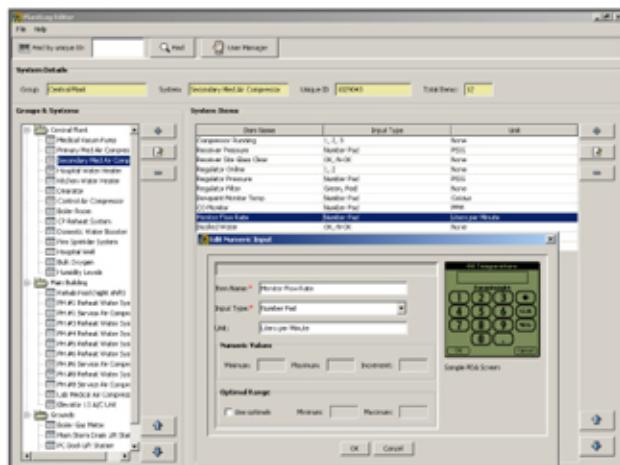
PlantLog Desktop showing bar chart based on a historical data.



PlantLog Desktop showing time series line chart based on historical data.



PlantLog Desktop showing inspection record details for viewing of readings, date, time, operator name and optional notes.



PlantLog Edit showing numeric input dialog for modifying details in the inspection system.

Main page showing all groups and their progress of completion.

Group overview page showing the completed status of all systems.

Vertical slider input screen for entry of value within a predefined range.

Number pad input screen for arbitrary numeric values

PDA Data Collection Terminals

PDA's are used in the PlantLog solution for equipment ID and data entry during the inspection process. The ID::VERIFI™ PDA terminal combines rugged durability to IP67 standards with high end data capture technology. Featuring an integrated laser barcode scanning engine, the ID::VERIFI™ is an ideal solution for data capture activities that require consistent and accurate performance.

The ID::VERIFI™ is the world's first, waterproof, Palm Powered™ barcode scanner. For reliability, you can't beat the Palm OS®, found in over 36 million portable devices worldwide. The PalmOS® is recognized as the world leader for its reliability and ease of use.



Description	Specification
Operating System	Palm OS 4.1
Microprocessor	33MHz Motorola DragonBall-VZ
LCD Display	160 X 160 Pixel 16 shades of gray with backlight
Communications	Handheld to PC using USB, Serial(RS232) and Infrared (IrDA)
Battery	1900 mAh Lithium Ion
Dimensions	(L x W x H) 180 x 95 x 38mm (7.1 x 3.7 x 1.5 inches)
Weight	approximately 460 grams (16.2 ounces)
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-10°C to 60°C (14°F to 140°F)

Barcode Labels

PlantLog uses special barcode tags to identify a given element within an inspection system. These tags are made of extremely durable anodized aluminum tags with a sub-surface photographic image that provides years of dependable service in the most demanding environments. The label image is sealed within the surface of the metal creating durability and resistance to heat, cold, chemicals, impact, and abrasion. Tab backings are pre applied with hi strength pressure sensitive adhesive for attachment to practically any surface.



Description	Specification
Material	0.005 in. thick, Anodized Aluminum, sub-surface image
Size	1.50 in. by 0.50 in Rectangle with round corners (radius: 0.125 in.)
Adhesive	pressure-sensitive 3M 9471

Paper Based System VS PlantLog System

Task	Paper Based System	PlantLog System
Equipment Identification	Sift through collection of printed forms to find correct area to enter data. (error prone)	Use PDA to scan equipment barcode ID. Instantly display a list of readings to be taken. (fully accurate)
Data Entry	Manually find and enter readings into paper form in a format that is assumed to be correct.	Each reading is listed in the order it should be taken with individual input screens that ensure data accuracy.
Data Storage	Filled out inspection forms are stored in filing cabinets. Occasionally an effort is made to transcribe the data into an electronic format, which results in a high rate of errors due to illegible handwriting and values being placed in the wrong area of the printed form.	With the press of a button, inspection readings are transferred to a master database stored on a standard desktop PC. Data is backed up regularly to a user selectable location or optionally to the PlantLog server where it is securely stored in the event of total machine failures or fire.
Data Analysis	Little or no ability to analyze historical inspection data from paper based forms.	Historical data on any piece of equipment can be quickly viewed in just a few mouse clicks. Data can be viewed in its entirety or filtered by any given date range. A multitude of graphical charts can be created to visually analyze trends and conditions. These charts can be memorized for later viewing and will dynamically update based on new data.
Data Reporting	Submitting reports for internal use or external regulatory agencies is accomplished through either photo copying paper forms or transcribing the data to some form of electronic format, which is slow and prone to errors.	Historical inspection data can be printed out in minutes. The ability to export data to a standard Microsoft Excel spreadsheet can be used for report creation or quick emailing to an interested party. Graphical charts can also be printed or exported to a standard image format to be embedded into prepared reports.



Things to Consider when choosing a paperless Inspection System

- Be cautious of products that support a wide variety of PDA devices with the same software. This typically results in generic functionality that is only marginally better than a paper based setup. Software that tightly integrates with the devices it runs on often provides much greater usability and lower technical support assistance.
- Products that boast about heavy duty relational databases and top tier infrastructures should be considered carefully. Given that the solution is meant to replace something that was done using pen and paper, the key focus is placed on simplicity and ease of use. There should be no need to setup a dedicated database server or even involve members of the IT department to perform technical tasks. Such products that require these items are usually more complicated than they need to be.
- Any paperless inspection software that does not utilize barcode scanners to identify equipment should be disregarded at once. Consider the tedious chore it would be to select a piece of equipment from a long list of items on a small screen found on a PDA. Also consider how easy it would be for a user to mistakenly select the wrong item, which may have a similar name, such as "Primary Air Compressor" and "Secondary Air Compressor". Finally, there can be little assurance that the readings were ever performed in front of the equipment or system and thus presents an accountability issue that could result in incomplete or inaccurate inspection data.

For more information:



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